

This document gives pertinent information concerning the reissuance of the VPDES Permit listed below. This permit is being processed as a **Minor, Industrial** permit. The discharge results from storm water discharged from a bulk fuel storage and distribution operation. The effluent limitations and special conditions contained in this permit will maintain the Water Quality Standards of 9 VAC 25-260-00 et seq.

1. Facility Name and Mailing Address: Kinder Morgan Newington Terminal
8200 Terminal Road
Newington, VA 22122

Facility Location: 8200 Terminal Road
Newington, VA 22122

Facility Contact Name: Richard Semcheski

SIC Code : 4226 – Terminal for Hire

County: Fairfax

Telephone Number: (703) 550-0408
2. Permit No.: VA0001945

Other VPDES Permits associated with this facility: N/A

Other Permits associated with this facility: Air Registration - 70087
Hazardous Waste – VAD077797165

E2/E3/E4 Status: N/A

Expiration Date of previous permit: May 25, 2008
3. Owner Name: Kinder Morgan Southeast Terminals, LLC

Owner Contact/Title: Richard Semcheski / Terminal Supervisor

Telephone Number: (703) 550-0408
4. Application Complete Date: January 15, 2008

Permit Drafted By: Susan Mackert
Date Drafted: March 25, 2008

Draft Permit Reviewed By: Alison Thompson
Date Reviewed: March 26, 2008

Public Comment Period : Start Date: April 23, 2008
End Date: May 22, 2008
5. Receiving Waters Information: See Attachment 1 for the Flow Frequency Determination

Receiving Stream Name : UT, Accotink Creek

Drainage Area at Outfall: <5 sq.mi.
River Mile: 1AXIG0.35

Stream Basin: Potomac River
Subbasin: Potomac River

Section: 7
Stream Class: III

Special Standards: b
Waterbody ID: VAN-A15R

7Q10 Low Flow: 0 MGD
7Q10 High Flow: 0 MGD

1Q10 Low Flow: 0 MGD
1Q10 High Flow: 0 MGD

Harmonic Mean Flow: 0 MGD
30Q5 Flow: 0 MGD

303(d) Listed: No
30Q10 Flow: 0 MGD

TMDL Approved: Yes
Date TMDL Approved: PCBs– 10/31/2007

TMDL Approved: No
Date TMDL Due: Benthic Macroinvertebrate - 2010

TMDL Approved: No
Date TMDL Due: Macrophytes – 2010
(expected to be removed)

TMDL Approved: No
Date TMDL Due: Fecal Coliform - 2016

6. Statutory or Regulatory Basis for Special Conditions and Effluent Limitations:

<input checked="" type="checkbox"/> State Water Control Law	<input type="checkbox"/> EPA Guidelines
<input checked="" type="checkbox"/> Clean Water Act	<input checked="" type="checkbox"/> Water Quality Standards
<input checked="" type="checkbox"/> VPDES Permit Regulation	<input type="checkbox"/> Other
<input checked="" type="checkbox"/> EPA NPDES Regulation	

7. Licensed Operator Requirements: N/A

8. Reliability Class: N/A

9. Permit Characterization:

<input checked="" type="checkbox"/> Private	<input type="checkbox"/> Effluent Limited	<input type="checkbox"/> Possible Interstate Effect
<input type="checkbox"/> Federal	<input checked="" type="checkbox"/> Water Quality Limited	<input type="checkbox"/> Compliance Schedule Required
<input type="checkbox"/> State	<input checked="" type="checkbox"/> Toxics Monitoring Program Required	<input type="checkbox"/> Interim Limits in Permit
<input type="checkbox"/> POTW	<input type="checkbox"/> Pretreatment Program Required	<input type="checkbox"/> Interim Limits in Other Document
<input type="checkbox"/> TMDL		

10. Wastewater Sources and Treatment Description:

Kinder Morgan operates a petroleum product distribution terminal on Terminal Road in Newington, Virginia. The terminal receives product from Plantation Pipeline. Product is stored in 15 above ground storage tanks (ASTs) located in the diked area of the property. The terminal currently distributes the following products: three grades of gasoline, turbo fuel, heating oil, and low-sulfur and regular-sulfur diesel. Products are loaded onto transport trucks at a covered loading rack for retail distribution. Jet fuel is provided to Dulles and Reagan National Airports via underground pipelines.

AST Diked Area

The ASTs are located in three separate diked areas. Storm water collects via gravity to the lowest point and is visually inspected prior to pumping the storm water to the oil-water separator. Inline hydrocarbon detectors are utilized; the sump pumps will shut off automatically if hydrocarbons are detected in the storm water. The sump pumps are not used while the facility is receiving product.

Loading Rack

The rack has eight loading bays. Wash water and any spills drain to the oil-water separator. The loading rack is equipped with a fire suppression system. This system requires regular testing, but the foam is omitted for the tests. Water generated from the testing is piped to the oil-water separator.

Truck Washing

A contractor is employed to wash the transport trucks. Each truck is usually washed once per month. Wash water is contained by a boom, collected by a vacuum truck, and hauled off site for treatment and disposal.

Paved Areas Runoff

Parking lots and vehicle traffic areas are all paved. Storm water runoff is piped to the oil-water separator.

Garage Activities

Garage drains had been sealed and spills are contained and removed as hazardous waste. There is no discharge associated with garage activities.

Hydrostatic Test Waters (Internal Outfall 102)

This discharge is generated as needed to test the integrity of the ASTs and the transport trucks. A review of DMR data from 2005 – 2007 indicates that hydrostatic testing took place in November 2005 (Tank #4), April 2006 (Tank #16), and November 2007 (Tank #16).

Treated Tank Bottom Waters (Internal Outfall 101)

Kinder Morgan has requested in the permit application that this outfall be removed from the permit as treated tank bottom water is no longer discharged at the facility. A review of DMR data from 2005 – 2007 indicates that a discharge from Outfall 101 did not take place during this time. Permit requirements for Outfall 101 will be removed with this reissuance.

Oil-Water Separator & Pond

Potentially contaminated storm water and any process wastewater flows into the oil-water separator (Concrete American Petroleum Institute Separator). This oil-water separator has a design flow rate of 0.220 MGD and a capacity of 12,000-gallons. All petroleum products removed from the separator are stored in an adjacent AST. The discharge from the oil-water separator flows over riprap into a pond with a design storage capacity of 0.6 MGD. There are two discharge pipes from the pond. The 18 inch northern pipe is designated Outfall 001 (the southern pipe is chained closed and is used in emergencies). The effluent discharge elevation is from the middle of the pond.

See Attachment 2 for the NPDES Permit Rating Worksheet.

A site map showing outfall locations and drainage areas was provided as part of the application package and is available in the permit reissuance file.

TABLE 1 – Outfall Description

Outfall Number	Discharge Sources	Treatment	Flow	Outfall Latitude and Longitude
001	Industrial Wastewater / Hydrostatic Test Water / Storm Water	Separation and Settling	0.176 MGD	38° 44' 09" N 77° 11' 35" W
102	Hydrostatic Test Water	Separation	0.006 MGD	38° 44' 09" N 77° 11' 35" W
See Attachment 3 for (Fort Belvoir Quadrangle, DEQ #193B) topographic map.				

11. Sludge Treatment and Disposal Methods:

This permit covers the discharge of industrial wastewater and storm water associated with industrial activities from a bulk fuel storage and distribution terminal. This permit does not address the treatment of domestic sewage or the production of sewage sludge as no municipal sludge is generated at this site.

12. Discharges, Intakes, Monitoring Stations, Other Items in Vicinity of Discharge

The facilities listed below discharge to Accotink Creek located within the waterbody VAN-A15R.

TABLE 2

TABLE 2	
1aACO006.10	Monitoring station located at Route 790 crossing of Accotink Creek
VA0057380	Quarles Petroleum - Newington
VA0001988	Motiva Enterprises, LLC - Springfield
VAR050988	Canada Dry - Springfield
VAR051042	SICPA Securink Corporation
VAR051053	UPS - Springfield
VAR051080	U.S. Army – Fort Belvoir
VAR051568	Rolling Frito Lay Sales
VAR051719	National Asphalt Paving Company
VAR051770	Fairfax County – Jermantown Maintenance Facility
VAR051795	HD Supply
VAG110046	Newington Concrete
VAG110069	Mid Atlantic Materials
VAG830091	U.S. Army – Fort Belvoir
VAG830285	U.S. Army – Fort Belvoir
VAG830286	U.S. Army – Fort Belvoir

- 13. Material Storage:** A list of materials stored on site is located in the permit reissuance file.
- 14. Site Inspection:** A compliance inspection was completed by Terry Nelson and Susan Mackert on February 14, 2008. The compliance inspection report confirms that the application package received on November 19, 2007 is accurate and representative of actual site conditions. The compliance inspection report is located in the permit reissuance file.
- 15. Receiving Stream Water Quality and Water Quality Standards:**
- a) Ambient Water Quality Data
- Monitoring data is not available for the receiving stream. The nearest Department of Environmental Quality monitoring station is located at the Route 790 crossing of Accotink Creek, approximately 1.07 rivermiles downstream from the facility outfall.
- The receiving stream is not listed on the current 303(d) list. However, the 2006 Virginia Water Quality Assessment 305(b)/303(d) Integrated Report (IR) lists numerous downstream impairments for both the free-flowing portion of Accotink Creek and the tidal portions of Accotink Creek and Pohick Creek
- A Total Maximum Daily Load (TMDL) for PCBs in fish tissue was approved by the U.S. EPA on October 31, 2007. Significant contributors of PCBs were given a waste load allocation in the TMDL. However, the facility was not categorized as a significant discharger and was not included in the TMDL.
- The following Total Maximum Daily Load (TMDL) schedule has been established.
- Benthic Macroinvertebrate – 2010
 - Aquatic Plants (macrophytes) – 2010, however it is expected to be removed during the 2008 Integrated Report submittal process
 - Fecal Coliform – 2016
- The complete planning statement is located within the permit reissuance file.
- b) Receiving Stream Water Quality Criteria
- Part IX of 9 VAC 25-260(360-550) designates classes and special standards applicable to defined Virginia river basins and sections. The receiving stream, a UT to Accotink Creek, is located within Section 7 of the Potomac River Basin, and classified as a Class III water.
- At all times, Class III waters must achieve a dissolved oxygen (D.O.) of 4.0 mg/L or greater, a daily average D.O. of 5.0 mg/L or greater, a temperature that does not exceed 32°C, and maintain a pH of 6.0-9.0 standard units (S.U.).
- Attachment 4 details other water quality criteria applicable to the receiving stream.
- Ammonia:
- Ammonia is not a parameter of concern due to the fact the discharge is industrial in nature and there is no reasonable potential to exceed the ammonia criteria. Therefore, it is staff's best professional judgment that ammonia limits need not be developed for this discharge.

Metals Criteria:

The Water Quality Criteria for some metals are dependent on the receiving stream's hardness (expressed as mg/l calcium carbonate). Since the 7Q10 of the receiving stream is zero, effluent data for hardness can be used to determine metals criteria. The average hardness of the effluent is 46 mg/l. The hardness-dependent metals criteria in Attachment 4 are based on this effluent value.

c) Receiving Stream Special Standards

The State Water Control Board's Water Quality Standards, River Basin Section Tables (9 VAC 25-260-360, 370 and 380) designates the river basins, sections, classes, and special standards for surface waters of the Commonwealth of Virginia. The receiving stream, UT to Accotink Creek, located within Section 7 of the Potomac River Basin. This section has been designated with a special standard of b.

Special Standard "b" (Potomac Embayment Standards) established effluent standards for all sewage plants discharging into Potomac River embayments and for expansions of existing plants discharging into non-tidal tributaries of these embayments. The Potomac Embayment Standards are not applied to this discharge since the discharge is not to an embayment area of the Potomac, nor is it an expansion of an existing discharge. The Potomac Embayment Standards is not applicable to this industrial discharge.

d) Threatened or Endangered Species

The Virginia DGIF Fish and Wildlife Information System Database was searched for records to determine if there are threatened or endangered species in the vicinity of the discharge. The following threatened or endangered species were identified within a 2 mile radius of the discharge: Bald Eagle, Peregrine Falcon, Loggerhead Shrike, Northern Goshawk, Bridle Shiner, Great Egret, Yellow-Crowned Night Heron, Northern Harrier, Barn Owl, Red-Breasted Nuthatch, Brown Creeper, Winter Wren, Sedge Wren, Hermit Thrush, Golden-Crowned Kinglet, Purple Finch and Red Crossbill. The limits proposed in this draft permit are protective of the Virginia Water Quality Standards and therefore, protect the threatened and endangered species found near the discharge.

The stream that the facility discharges to is within a reach identified as having an Anadromous Fish Use. It is staff's best professional judgment that the proposed limits are protective of this use.

The project review report is available in the permit reissuance file.

16. Antidegradation (9 VAC 25-260-30):

All state surface waters are provided one of three levels of antidegradation protection. For Tier 1 or existing use protection, existing uses of the water body and the water quality to protect these uses must be maintained. Tier 2 water bodies have water quality that is better than the water quality standards. Significant lowering of the water quality of Tier 2 waters is not allowed without an evaluation of the economic and social impacts. Tier 3 water bodies are exceptional waters and are so designated by regulatory amendment. The antidegradation policy prohibits new or expanded discharges into exceptional waters.

The receiving stream, UT to Accotink Creek, has been classified as Tier 1 based on the fact that the UT is a dry ditch transporting storm water to Accotink Creek. Permit limits proposed have been established by determining wasteload allocations which will result in attaining and/or maintaining all water quality criteria which apply to the receiving stream, including narrative criteria. These wasteload allocations will provide for the protection and maintenance of all existing uses.

17. Effluent Screening, Wasteload Allocation, and Effluent Limitation Development :

To determine water quality-based effluent limitations for a discharge, the suitability of data must first be determined. Data is suitable for analysis if one or more representative data points is equal to or above the quantification level ("QL") and the data represent the exact pollutant being evaluated.

Next, the appropriate Water Quality Standards (WQS) are determined for the pollutants in the effluent. Then, the Wasteload Allocations (WLA) are calculated. In this case since the critical flows 7Q10 and 1Q10 have been determined to be zero, the WLA's are equal to the WQS. The WLA values are then compared with available effluent data to determine the need for effluent limitations. Effluent limitations are needed if the 97th percentile of the daily effluent concentration values is greater than the acute wasteload allocation or if the 97th percentile of the four-day average effluent concentration values is greater than the chronic wasteload allocation. Effluent limitations are based on the most limiting WLA, the required sampling frequency, and statistical characteristics of the effluent data.

a) Effluent Screening:

Effluent data obtained from Attachment A, the permit application, and DMR submissions has been reviewed and determined to be suitable for evaluation.

b) Mixing Zones and Wasteload Allocations (WLAs):

Wasteload allocations (WLAs) are calculated for those parameters in the effluent with the reasonable potential to cause an exceedance of water quality criteria. The basic calculation for establishing a WLA is the steady state complete mix equation:

$$WLA = \frac{C_o [Q_e + (f)(Q_s)] - [(C_s)(f)(Q_s)]}{Q_e}$$

Where:

WLA	=	Wasteload allocation
C _o	=	In-stream water quality criteria
Q _e	=	Design flow
Q _s	=	Critical receiving stream flow (1Q10 for acute aquatic life criteria; 7Q10 for chronic aquatic life criteria; harmonic mean for carcinogen-human health criteria; and 30Q5 for non-carcinogen human health criteria)
f	=	Decimal fraction of critical flow
C _s	=	Mean background concentration of parameter in the receiving stream.

The water segment receiving the discharge via Outfall 001 is considered to have a 7Q10 and 1Q10 of 0.0 MGD. As such, there is no mixing zone and the WLA is equal to the C_o.

c) Effluent Limitations Toxic Pollutants

9 VAC 25-31-220.D. requires limits be imposed where a discharge has a reasonable potential to cause or contribute to an in-stream excursion of water quality criteria. Those parameters with (A)WLAs that are near effluent concentrations are evaluated for limits.

The VPDES Permit Regulation at 9 VAC 25-31-230.D. requires that monthly and weekly average limitations be imposed for continuous discharges from POTWs and monthly average and daily maximum limitations be imposed for all other continuous non-POTW discharges.

1) BTEX and Naphthalene

The following discussions on the development of BTEX and naphthalene limits are taken from Regulation 9 VAC 25-120-10 et seq., General Virginia Pollution Discharge Elimination System (VPDES) Permit Regulation for Discharges from Petroleum Contaminated Sites and Hydrostatic Tests.

Benzene:

The EPA criteria document for benzene (EPA 440/5-80-018, EPA 1980a) states that benzene may be acutely toxic to freshwater organisms at concentrations as low as 5,300 µg/L. This is an LC50 value for rainbow trout. The document also states that acute toxicity would occur at lower concentrations among more sensitive species. No data were available concerning the chronic toxicity of benzene to sensitive freshwater organisms. The derivation of a "safe level" for benzene was based on the 5,300 µg/L LC50. This value was divided by 10 in order to approximate a level which would not be expected to cause acute toxicity. (The use of an application factor of 10 was recommended by the National Academy of Sciences in the EPA's publication "Water Quality Criteria, 1972" (EPA/R3/73-033). This use of application factors when setting water quality criteria is still considered valid in situations where data are not sufficient to develop criteria according to more recent guidance.) The resulting "non-lethal" concentration of 530 µg/L was divided by an assumed acute to chronic ratio of 10 to arrive at the water quality-based permit limitation of 53 µg/L. When actual data are not available, EPA, in the Technical Support Document for Water Quality-based Toxics Control (EPA/505/2-90-001) recommends using an acute to chronic ratio of 10). The EPA model permit's technology-based 50 µg/L value is more protective, therefore, it was chosen over the 53 µg/L water quality-based concentration.

Ethylbenzene:

The EPA criteria document for ethylbenzene (EPA 440/5-80-048, EPA 1980b) gives an acute effects concentration of 32,000 µg/L. This is an LC50 for bluegill sunfish. Acute toxicity may occur at lower concentrations if more sensitive species were tested. No definitive data are available on the chronic toxicity of ethylbenzene to freshwater organisms. In order to derive an acceptable level of ethylbenzene for the protection of freshwater organisms the acute value of 32,000 µg/L was divided by 100, using the same assumptions employed above for benzene. The resulting value of 320 µg/L is a calculated chronic toxicity concentration for ethylbenzene.

Toluene:

The EPA criteria document for toluene (EPA 440/5-80-075, EPA 1980c) states that acute toxicity to freshwater organisms occurs at 17,500 µg/L and would occur at lower concentrations if more sensitive organisms were tested. No data are available on the chronic toxicity of toluene to freshwater species. Based on the available data for acute toxicity and dividing by the application factor of 100, the proposed effluent limit for toluene discharged to freshwater is 175 µg/L.

Xylene:

Xylene is not a 307(a) priority pollutant, therefore no criteria document exists for this compound. There are three isomers of xylene (ortho, meta and para) and the general permit limits are established so that the sum of all xylenes is considered in evaluating compliance. The proposed effluent limits are based on a search of the EPA's ECOTOX data base. According to ECOTOX, the lowest freshwater LC50 for xylenes is 3,300 µg/L reported for rainbow trout (Mayer and Ellersieck 1986). Based on the rationale presented earlier for other compounds, this acutely toxic concentration was divided by 10 to account for species that were not tested but which may be more sensitive than rainbow trout. Then, in order to find a concentration that is expected to be safe over chronic exposures, an additional safety factor of 10 was applied to arrive at the proposed effluent limitation of 33 µg/L total xylenes.

Naphthalene:

The EPA criteria document for naphthalene (EPA 440/5-80-059) gives a chronic effect concentration of 620 µg/L with fathead minnows, but it states that effects would occur at lower concentrations if more sensitive freshwater organisms were tested. According to the ECOTOX DATABASE, naphthalene at a concentration of 1,000 µg/L was lethal to 50% of the water fleas (*Daphnia pulex*) tested (Truco et al.

1983). DeGaere and associates (1982) tested the effects of naphthalene on Rainbow Trout and reported an LC50 concentration of 1600 µg/l. Based upon these more recent studies, it is recommended that the effluent limit for naphthalene in freshwater be set at 10 µg/L.

Internal Outfall 101 – Treated Tank Bottom Waters

Kinder Morgan has requested in the permit application that this outfall be removed from the permit as treated tank bottom water is no longer discharged at this facility. A review of DMR data from 2005 – 2007 indicates that a discharge from Outfall 101 did not take place during this time. Permit requirements for Outfall 101 will be removed with this reissuance.

Internal Outfall 102 – Hydrostatic Test Waters

Hydrostatic testing is conducted on the aboveground storage tanks, pipelines, and tanker trucks after major repairs as required by DEQ regulation VR 680-14-13 Aboveground Storage Tank Pollution Prevention Requirements. A review of DMR data from 2005 – 2007 indicates that hydrostatic testing took place in November 2005 (Tank #4), April 2006 (Tank #16), and November 2007 (Tank #16). Analytical data submitted indicates that BTEX and Naphthalene permit limitations were met during each hydrostatic testing event.

Due to the potential volume of the hydrostatic test waters, it is staff's best professional judgment that the monitoring frequency for a standard hydrostatic test remain two sampling events per test. The first is to be representative of the test waters collected during the initial discharge or a representative sample collected and analyzed prior to discharge. The second sample is to be collected and representative of the final 20% or the last two feet of water contained in the tank, tanker truck, or pipeline. The discharge limitations for BTEX and naphthalene for gasoline contamination and petroleum products other than gasoline are the same as outlined in the above section.

2) Total Residual Chlorine:

Total Residual Chlorine limits are to be considered for Internal Outfall 102. Potable water from the local municipality is utilized for hydrostatic testing. Potable water contains measurable amounts of chlorine (1.0-3.0 mg/L). TRC limitations are established to prevent impacts (acute and chronic) to aquatic organisms. The TRC limitation is only applicable if the water used in the test has been chlorinated. An instantaneous maximum limit of 0.016 mg/L is proposed based on the chronic aquatic life criterion in Virginia's water quality standards and the WLA derivation in Attachment 4.

3) Metals/Organics:

DEQ's Guidance recommends that chemical specific water quality-based limits not be placed on storm water Outfalls at this time because the methodology for developing limits and the proper method of sampling is still under review by EPA. EPA produced a document dated August 1, 1996, entitled "Interim Permitting Approach for Water Quality-Based Effluent Limitations in Storm Water Permits". This document indicated that an interim approach to limiting storm water could be through the use of best management practices rather than numerical limits.

The duration of a discharge is not expected to exceed four consecutive days. Therefore, only the acute wasteload allocation (WLA_a) needs to be addressed. Water Quality Criteria for human health (and chronic toxicity to a lesser degree) are based upon long term, continuous exposure to pollutants from effluents, and storm water discharges are short term and intermittent. Therefore, it is believed that the human health and chronic criteria are not applicable to storm water receiving discharges. If it is raining a sufficient amount to generate a discharge of storm water, it is assumed that the receiving stream flow will be greater than the critical flow due to storm water runoff within the stream's drainage area. Therefore, recognition of the dilution caused by the rainfall, the Waste Load Allocations (WLA_a) were calculated by multiplying the acute Water Quality Criteria by two. The factor of two is derived from

the safety factor of two used to convert the acute criteria from the final acute value. During the previous reissuance of the permit, an acute criteria monitoring end point of 72 ug/L was derived for dissolved zinc. The facility was required to monitor annually for dissolved zinc with results being evaluated against the acute criteria monitoring end point during this reissuance.

Based on DMR monitoring data submitted from 2005 – 2007, the acute criteria monitoring end point of 72 ug/L was not exceeded. Based on a 46 mg/L hardness and a calculated Acute Criteria of 61 ug/L for Zinc (Attachment 4), the 2x Acute Criteria Monitoring End Point for this reissuance is 122 ug/L. It is staff's best professional judgment that annual monitoring for dissolved zinc be discontinued for Outfall 001 with this reissuance. However, the facility shall continue to utilize Best Management Practices as part of the SWP3 to ensure that there is no contamination of storm water runoff impacting State waters from zinc at the facility.

4) Herbicides:

A review of chlorinated herbicide data provided as a supplement to the original application indicates that none of the analytes were detected above the reporting limit. Since limits for herbicides are not routinely placed in permits for storm water discharges, the facility is required to utilize Best Management Practices as part of the SWP3 to ensure that there is no contamination of storm water runoff that impacts State waters from the use of herbicides at the facility. Herbicides will continue to be monitored as part of the water quality criteria monitoring in the reissued permit.

5) Pesticides:

Since limits for pesticides are not routinely placed in permits for storm water discharges, the facility is required to utilize Best Management Practices as part of the SWP3 to ensure that there is no contamination of storm water runoff that impacts State waters from the use of pesticides at the facility. Pesticides will continue to be monitored as part of the water quality criteria monitoring in the reissued permit.

d) Effluent Limitations and Monitoring– Conventional and Non-Conventional Pollutants

1) Total Organic Carbon (TOC)

Internal Outfall 102 – Hydrostatic Test Waters

TOC monitoring will be carried forward with this permit reissuance to ensure that the effluent is not contaminated with non-petroleum organic substances. It is believed that TOC concentrations in this type of effluent are low. If sampling data indicates high levels of TOC, the permit may be modified at a later time to include a TOC limit.

2) Total Petroleum Hydrocarbons (TPH)

Outfall 001

A TPH daily maximum limit of 15 mg/L will be carried forward with this permit reissuance. The limit is based on the ability of simple oil-water separator technology to recover free product from water. Wastewater discharged without a visible sheen is generally expected to meet this effluent limitation. A review of DMR data from 2005 – 2007 indicates that the facility is consistently below this permit limit.

Internal Outfall 102 – Hydrostatic Test Waters

The instantaneous maximum limit of 15 mg/L will be carried forward with this permit reissuance. The limit is based on the ability of simple oil-water separator technology to recover free product from water. Wastewater discharged without a visible sheen is generally expected to meet this effluent limitation. A review of DMR data from 2005 – 2007 indicates that the facility is consistently below this permit limit.

Total Petroleum Hydrocarbons shall be analyzed using the Wisconsin Department of Natural Resources Modified Diesel Range Organics Method as specified in Wisconsin publication SW-141 (1995), or by EPA SW-846 Method 8015C for diesel range organics, or by EPA SW-846 Method 8270D. If Method 8270D is used, the lab must report the combination of diesel range organics and polynuclear aromatic hydrocarbons.

3) Total Suspended Solids (TSS)

Outfall 001

The daily maximum limit of 60 mg/L will be carried forward with this permit reissuance. The limit is included to ensure proper operation and maintenance of the storm water pond. The limit was derived from requirements at other industrial facilities providing sedimentation of storm water runoff. A review of DMR data from 2005 – 2007 indicates that the facility has exceeded the permit limit twice (2005 and 2006).

Internal Outfall 102 – Hydrostatic Test Waters

TSS monitoring will be carried forward with this permit reissuance. TSS is monitored to ensure that the effluent is not contaminated with excessive amounts of solids that might be flushed out of the ASTs, pipes, or tanker trucks along with the test waters. A review of DMR data from 2005 – 2007 indicates that a limit is not warranted at this time. If significant concentrations of suspended solids are detected, the permit may be modified at a later time to include a limit.

4) pH

Outfall 001 and Internal Outfall 102 (Hydrostatic Test Waters)

pH limitations are set at the water quality criteria.

e) Effluent Limitations and Monitoring Summary.

The effluent limitations are presented in the following table. Limits were established for Flow, Total Suspended Solids, TPH, pH, Total Residual Chlorine, TOC, BTEX parameters and Naphthalene.

The limit for Total Suspended Solids for Outfall 001 is based on Best Professional Judgement.

The limit for pH for Outfall 001 and Outfall 102 is based on water quality criteria.

Sample Type and Frequency are in accordance with the recommendations in the VPDES Permit Manual.

18. Antibacksliding:

All limits in this permit are at least as stringent as those previously established. Backsliding does not apply to this reissuance.

19. Effluent Limitations/Monitoring Requirements: Outfall 001

Maximum flow of this industrial facility is 0.176 MGD.

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	NA	NL	NA	NA	NL	1/3M**	Estimate
pH (S.U.)	3	NA	NA	6.0 S.U.	9.0 S.U.	1/3M**	Grab
Total Suspended Solids (mg/L)	2	NA	NA	NA	60 mg/L	1/3M**	Grab
Total Petroleum Hydrocarbons* (mg/L)	2	NA	NA	NA	15 mg/L	1/3M**	Grab
Acute Toxicity – <i>C. dubia</i> (TU _a)		NA	NA	NA	NL	1/YR	Grab

The basis for the limitations codes are: *MGD* = Million gallons per day.*1/3M* = Once every three months.1. Federal Effluent Requirements *N/A* = Not applicable.*1/YR* = Once every twelve months.2. Best Professional Judgement *NL* = No limit; monitor and report.3. Water Quality Standards *S.U.* = Standard units.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

*Total Petroleum Hydrocarbons (TPH) shall be analyzed using the Wisconsin Department of Natural Resources Modified Diesel Range Organics Method as specified in Wisconsin publication SW-141 (1995), or by EPA SW-846 Method 8015C for diesel range organics, or by EPA SW-846 Method 8270D. If Method 8270D is used, the lab must report the combination of diesel range organics and polynuclear aromatic hydrocarbons.

**The quarterly monitoring periods shall be January 1 - March 31, April 1 - June 30, July 1 - September 30 and October 1 - December 31. The DMR shall be submitted no later than the 10th day of the month following the monitoring period (April 10, July 10, October 10 and January 10, respectively).

19. Effluent Limitations/Monitoring Requirements: Outfall 102 (Hydrostatic Test Waters)

Maximum Flow: Dependent on Tank Tested.

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	NA	NL	NA	NA	NL	2/Dis	Estimate
pH (S.U.)	3	NA	NA	6.0 S.U.	9.0 S.U.	2/Dis	Grab
Total Suspended Solids (mg/L)	2	NL	NA	NA	NL	2/Dis	Grab
Total Petroleum Hydrocarbons* (mg/L)	2	NL	NA	NA	15 mg/L	2/Dis	Grab
Total Residual Chlorine (mg/L)	3	NA	0.016 mg/L	NA	NA	2/Dis	Grab
Total Organic Carbon (mg/L)	2	NL	NA	NA	NL	2/Dis	Grab
Benzene (µg/L)	2	NA	NA	NA	50 µg/L	2/Dis	Grab
Ethylbenzene (µg/L)	2	NA	NA	NA	320 µg/L	2/Dis	Grab
Toluene (µg/L)	2	NA	NA	NA	175 µg/L	2/Dis	Grab
Total Xylenes (µg/L)	2	NA	NA	NA	33 µg/L	2/Dis	Grab
Naphthalene** (µg/L)	2	NA	NA	NA	10 µg/L	2/Dis	Grab

The basis for the limitations codes are: *MGD* = Million gallons per day.*2/Dis* = Twice per discharge.

1. Federal Effluent Requirements

N/A = Not applicable.

2. Best Professional Judgement

NL = No limit; monitor and report.

3. Water Quality Standards

S.U. = Standard units.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

*Total Petroleum Hydrocarbons (TPH) shall be analyzed using the Wisconsin Department of Natural Resources Modified Diesel Range Organics Method as specified in Wisconsin publication SW-141 (1995), or by EPA SW-846 Method 8015C for diesel range organics, or by EPA SW-846 Method 8270D. If Method 8270D is used, the lab must report the combination of diesel range organics and polynuclear aromatic hydrocarbons.

** Naphthalene monitoring is only required when hydrostatic testing occurs on tanks containing aviation gasoline, jet fuel, or diesel.

2/Dis - Contingent, 2 samples per tank tested. The first sample shall be collected during the initial discharge or be a representative sample collected and analyzed prior to discharge. The second sample shall be collected during the discharge of the final 20% by volume or the last two feet of hydrostatic tank test water.

20. Other Permit Requirements :

- a) Part I.B. of the permit contains quantification levels and compliance reporting instructions.

9 VAC 25-31-190.L.4.c. requires an arithmetic mean for measurement averaging and 9 VAC 25-31-220.D. requires limits be imposed where a discharge has a reasonable potential to cause or contribute to an in-stream excursion of water quality criteria. Specific analytical methodologies for toxics are listed in this permit section as well as quantification levels (QLs) necessary to demonstrate compliance with applicable permit limitations or for use in future evaluations to determine if the pollutant has reasonable potential to cause or contribute to a violation. Required averaging methodologies are also specified.

- b) Permit Section Part I.C., details the requirements for Toxics Management Program.

The VPDES Permit Regulation at 9 VAC 25-31-210 requires monitoring and 9 VAC 25-31-220.I, requires limitations in the permit to provide for and assure compliance with all applicable requirements of the State Water Control Law and the Clean Water Act. A TMP is imposed for municipal facilities with a design rate >1.0 MGD, with an approved pretreatment program or required to develop a pretreatment program, or those determined by the Board based on effluent variability, compliance history, IWC, and receiving stream characteristics.

Annual toxicity testing with *Ceriodaphnia dubia* will continue with this reissuance.

- c) Permit Section Part I.D. details the requirements of a Storm Water Management Plan.

9 VAC 25-31-10 defines discharges of storm water from municipal treatment plants with design flow of 1.0 MGD or more, or plants with approved pretreatment programs, as discharges of storm water associated with industrial activity. 9 VAC 25-31-120 requires a permit for these discharges. The Pollution Prevention Plan requirements are derived from the VPDES general permit for discharges of storm water associated with industrial activity, 9 VAC 25-151-10 et seq.

21. Other Special Conditions :

- a) O&M Manual Requirement. Required by Code of Virginia §62.1-44.19; Sewage Collection and Treatment Regulations, 9 VAC 25-790; VPDES Permit Regulation, 9 VAC 25-31-190.E. The permittee shall submit a statement confirming the accuracy and completeness of the current O&M Manual to the Department of Environmental Quality, Northern Regional Office (DEQ-NRO) by August 30, 2008. Future changes to the facility must be addressed by the submittal of a revised O&M Manual within 90 days of the changes. Non-compliance with the O&M Manual shall be deemed a violation of the permit.
- b) Water Quality Criteria Reopener. The VPDES Permit Regulation at 9 VAC 25-31-220 D. requires establishment of effluent limitations to ensure attainment/maintenance of receiving stream water quality criteria. Should data collected and submitted for Attachment A of the permit, indicate the need for limits to ensure protection of water quality criteria, the permit may be modified or alternately revoked and reissued to impose such water quality-based limitations.
- c) Water Quality Criteria Monitoring. State Water Control Law §62.1-44.21 authorizes the Board to request information needed to determine the discharge's impact on State waters. States are required to review data on discharges to identify actual or potential toxicity problems, or the attainment of water quality goals, according to 40 CFR Part 131, Water Quality Standards, subpart 131.11. To ensure that water quality criteria are maintained, the permittee is required to analyze the facility's effluent from Outfall 001 for the substances noted in Attachment A of this VPDES permit after the start of the third year from the permit's effective date.

- d) Notification Levels. The permittee shall notify the Department as soon as they know or have reason to believe:
- a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:
 - (1) One hundred micrograms per liter;
 - (2) Two hundred micrograms per liter for acrolein and acrylonitrile; five hundred micrograms per liter for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter for antimony;
 - (3) Five times the maximum concentration value reported for that pollutant in the permit application; or
 - (4) The level established by the Board.
 - b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:
 - (1) Five hundred micrograms per liter;
 - (2) One milligram per liter for antimony;
 - (3) Ten times the maximum concentration value reported for that pollutant in the permit application; or
 - (4) The level established by the Board.
- e) Materials Handling/Storage. 9 VAC 25-31-50 A prohibits the discharge of any wastes into State waters unless authorized by permit. Code of Virginia §62.1-44.16 and §62.1-44.17 authorize the Board to regulate the discharge of industrial waste or other waste.
- f) Hydrostatic Testing. The permittee shall obtain approval from the DEQ Northern Virginia Regional Office forty-eight (48) hours in advance of any discharge resulting from hydrostatic testing. The conditions of approval will be contingent on the volume and duration of the proposed discharge, and the nature of the residual product.
- g) No Discharge of Detergents, Surfactants, or Solvents to the Oil/Water Separators. This special condition is necessary to ensure that the oil/water separators' performance is not impacted by compounds designed to emulsify oil. Detergents, surfactants, and some other solvents will prohibit oil recovery by physical means.
- h) Oil Storage Ground Water Monitoring Reopener. As this facility currently manages ground water in accordance with 9 VAC 25-90-10 et seq., Oil Discharge Contingency Plans and Administration Fees for Approval, this permit does not presently impose ground water monitoring requirements. However, this permit may be modified or alternately revoked and reissued to include ground water monitoring not required by the ODCP regulation.

Permit Section Part II. Part II of the permit contains standard conditions that appear in all VPDES Permits. In general, these standard conditions address the responsibilities of the permittee, reporting requirements, testing procedures and records retention.

23. Changes to the Permit from the Previously Issued Permit:**a) Special Conditions:**

1) The internal Outfall 101 special condition was removed since Outfall 101 has been removed from the permit.

b) Monitoring and Effluent Limitations:

- 1) Monitoring requirements for internal Outfall 101 have been removed from the permit.
- 2) The limit for Total Xylenes was reduced to 33 µg/L in accordance with 9 VAC 25-120, General VPDES Permit for Discharges from Petroleum Contaminated Sites.
- 3) The limit for Naphthalene was reduced to 10 µg/L in accordance with 9 VAC 25-120, General VPDES Permit for Discharges from Petroleum Contaminated Sites.
- 4) Annual monitoring for dissolved zinc has been removed from the permit as the facility did not exceed the Acute Criteria Monitoring End Point during the previous permit cycle.

24. Variances/Alternate Limits or Conditions:

N/A

25. Public Notice Information:

First Public Notice Date: April 21, 2008

Second Public Notice Date: April 28, 2008

Public Notice Information is required by 9 VAC 25-31-280 B. All pertinent information is on file and may be inspected, and copied by contacting the: DEQ Northern Regional Office, 13901 Crown Court, Woodbridge, VA 22193, Telephone No. (703) 583-3853, sdmackert@deq.virginia.gov. See Attachment 5 for a copy of the public notice document.

Persons may comment in writing or by email to the DEQ on the proposed permit action, and may request a public hearing, during the comment period. Comments shall include the name, address, and telephone number of the writer, and shall contain a complete, concise statement of the factual basis for comments. Only those comments received within this period will be considered. The DEQ may decide to hold a public hearing if public response is significant. Requests for public hearings shall state the reason why a hearing is requested, the nature of the issues proposed to be raised in the public hearing and a brief explanation of how the requester's interests would be directly and adversely affected by the proposed permit action. Following the comment period, the Board will make a determination regarding the proposed permit action. This determination will become effective, unless the DEQ grants a public hearing. Due notice of any public hearing will be given.

26. 303 (d) Listed Stream Segments and Total Max. Daily Loads (TMDL):

The receiving stream is not listed on the current 303(d) list. However, the 2006 Virginia Water Quality Assessment 305(b)/303(d) Integrated Report (IR) lists numerous downstream impairments for both the free-flowing portion of Accotink Creek and the tidal portions of Accotink Creek and Pohick Creek. A Total Maximum Daily Load (TMDL) for PCBs in fish tissue was approved by the U.S. EPA on October 31, 2007. Significant contributors of PCBs were given a waste load allocation in the TMDL. However, the facility was not categorized as a significant discharger and was not included in the TMDL.

TMDL Reopener: This special condition is to allow the permit to reopened if necessary to bring it in compliance with any applicable TMDL that may be developed and approved for the receiving stream.

27. Additional Comments:

Previous Board Action(s): None

Staff Comments: None

Public Comment: No comments were received during the public notice.

EPA Checklist: The checklist can be found in Attachment 6.

MEMORANDUM

DEPARTMENT OF ENVIRONMENTAL QUALITY - WATER DIVISION
Water Quality Assessments and Planning
629 E. Main Street P.O. Box 10009 Richmond, Virginia 23240

SUBJECT: Flow Frequency Determination
Exxon Co. Newington Terminal - #VA0001945

TO: April Young, NRO

FROM: Paul E. Herman, P.E., WQAP *PEH*

DATE: January 7, 1998

COPIES: Ron Gregory, Charles Martin, File

The Exxon Co. - Newington Terminal discharges to an unnamed tributary of the Accotink Creek near Newington, VA. Flow frequencies are required at this site for use by the permit writer in developing effluent limitations for the VPDES permit.

The values at the discharge point were determined by inspection of the USGS Fort Belvoir Quadrangle topographical map which shows the receiving stream as a dry ravine at the discharge point. The flow frequencies for dry ravines are 0.0 cfs for the 1Q10, 7Q10, 30Q5, high flow 1Q10, high flow 7Q10, and the harmonic mean.

If you have any questions concerning this analysis, please let me know.

RECEIVED
JAN 8 1998

NPDES PERMIT RATING WORK SHEET

VPDES NO. : VA0001945

<input checked="" type="checkbox"/>	Regular Addition
<input type="checkbox"/>	Discretionary Addition
<input type="checkbox"/>	Score change, but no status Change
<input type="checkbox"/>	Deletion

Facility Name: Kinder Morgan - Newington

City / County: Fairfax County

Receiving Water: UT, Accotink Creek

Reach Number:

Is this facility a steam electric power plant (sic =4911) with one or more of the following characteristics?

1. Power output 500 MW or greater (not using a coolingpond/lake)
2. A nuclear power Plant
3. Cooling water discharge greater than 25% of the receiving stream's 7Q10 flow rater

Is this permit for a municipal separate storm sewer serving a population greater than 100,000?

- ☐ YES; score is 700 (stop here)
- ☒ NO; (continue)

☐ Yes; score is 600 (stop here) ☒ NO; (continue)

FACTOR 1: Toxic Pollutant Potential

PCS SIC Code: _____ Primary Sic Code: 5171 Other Sic Codes: _____

Industrial Subcategory Code: 000 (Code 000 if no subcategory)

Determine the Toxicity potential from Appendix A. Be sure to use the TOTAL toxicity potential column and check one)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
<input type="checkbox"/> No process waste streams	0	0	<input type="checkbox"/> 3.	3	15	<input type="checkbox"/> 7.	7	35
<input type="checkbox"/> 1.	1	5	<input type="checkbox"/> 4.	4	20	<input checked="" type="checkbox"/> 8.	8	40
<input type="checkbox"/> 2.	2	10	<input type="checkbox"/> 5.	5	25	<input type="checkbox"/> 9.	9	45
			<input type="checkbox"/> 6.	6	30	<input type="checkbox"/> 10.	10	50

Code Number Checked: 8

Total Points Factor 1: 40

FACTOR 2: Flow/Stream Flow Volume (Complete either Section A or Section B; check only one)

Section A – Wastewater Flow Only considered

Wastewater Type (see Instructions)	Code	Points
Type I: Flow < 5 MGD	<input type="checkbox"/> 11	0
Flow 5 to 10 MGD	<input type="checkbox"/> 12	10
Flow > 10 to 50 MGD	<input type="checkbox"/> 13	20
Flow > 50 MGD	<input type="checkbox"/> 14	30
Type II: Flow < 1 MGD	<input checked="" type="checkbox"/> 21	10
Flow 1 to 5 MGD	<input type="checkbox"/> 22	20
Flow > 5 to 10 MGD	<input type="checkbox"/> 23	30
Flow > 10 MGD	<input type="checkbox"/> 24	50
Type III: Flow < 1 MGD	<input type="checkbox"/> 31	0
Flow 1 to 5 MGD	<input type="checkbox"/> 32	10
Flow > 5 to 10 MGD	<input type="checkbox"/> 33	20
Flow > 10 MGD	<input type="checkbox"/> 34	30

Section B – Wastewater and Stream Flow Considered

Wastewater Type (see Instructions)	Percent of Instream Wastewater Concentration at Receiving Stream Low Flow	Code	Points
Type I/III:	< 10 %	<input type="checkbox"/> 41	0
	10 % to < 50 %	<input type="checkbox"/> 42	10
	> 50%	<input type="checkbox"/> 43	20
Type II:	< 10 %	<input type="checkbox"/> 51	0
	10 % to < 50 %	<input type="checkbox"/> 52	20
	> 50 %	<input type="checkbox"/> 53	30

Code Checked from Section A or B: 21

Total Points Factor 2: 10

NPDES PERMIT RATING WORK SHEET**FACTOR 3: Conventional Pollutants**

(only when limited by the permit)

A. Oxygen Demanding Pollutants: (check one) ☐ BOD ☐ COD ☐ Other: _____

Permit Limits: (check one)

		Code	Points
<input type="checkbox"/>	< 100 lbs/day	1	0
<input type="checkbox"/>	100 to 1000 lbs/day	2	5
<input type="checkbox"/>	> 1000 to 3000 lbs/day	3	15
<input type="checkbox"/>	> 3000 lbs/day	4	20

Code Number Checked: NA**Points Scored:** 0

B. Total Suspended Solids (TSS)

Permit Limits: (check one)

		Code	Points
<input checked="" type="checkbox"/>	< 100 lbs/day	1	0
<input type="checkbox"/>	100 to 1000 lbs/day	2	5
<input type="checkbox"/>	> 1000 to 5000 lbs/day	3	15
<input type="checkbox"/>	> 5000 lbs/day	4	20

Code Number Checked: 1**Points Scored:** 0C. Nitrogen Pollutants: (check one) ☐ Ammonia ☐ Other: _____

Permit Limits: (check one)

	<i>Nitrogen Equivalent</i>	Code	Points
<input type="checkbox"/>	< 300 lbs/day	1	0
<input type="checkbox"/>	300 to 1000 lbs/day	2	5
<input type="checkbox"/>	> 1000 to 3000 lbs/day	3	15
<input type="checkbox"/>	> 3000 lbs/day	4	20

Code Number Checked: NA**Points Scored:** 0**Total Points Factor 3:** 0**FACTOR 4: Public Health Impact**

Is there a public drinking water supply located within 50 miles downstream of the effluent discharge (this include any body of water to which the receiving water is a tributary)? A public drinking water supply may include infiltration galleries, or other methods of conveyance that ultimately get water from the above reference supply.

☐ YES; (If yes, check toxicity potential number below)☒ NO; (If no, go to Factor 5)

Determine the *Human Health* potential from Appendix A. Use the same SIC doe and subcategory reference as in Factor 1. (Be sure to use the *Human Health* toxicity group column – check one below)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
<input type="checkbox"/> No process waste streams	0	0	<input type="checkbox"/> 3.	3	0	<input type="checkbox"/> 7.	7	15
<input type="checkbox"/> 1.	1	0	<input type="checkbox"/> 4.	4	0	<input type="checkbox"/> 8.	8	20
<input type="checkbox"/> 2.	2	0	<input type="checkbox"/> 5.	5	5	<input type="checkbox"/> 9.	9	25
			<input type="checkbox"/> 6.	6	10	<input type="checkbox"/> 10.	10	30

Code Number Checked: NA**Total Points Factor 4:** 0

NPDES PERMIT RATING WORK SHEET

FACTOR 5: Water Quality Factors

- A. *Is (or will) one or more of the effluent discharge limits based on water quality factors of the receiving stream (rather than technology-base federal effluent guidelines, or technology-base state effluent guidelines), or has a wasteload allocation been to the discharge*

	Code	Points
<input checked="" type="checkbox"/> YES	1	10
<input type="checkbox"/> NO	2	0

- B. *Is the receiving water in compliance with applicable water quality standards for pollutants that are water quality limited in the permit?*

	Code	Points
<input checked="" type="checkbox"/> YES	1	0
<input type="checkbox"/> NO	2	5

- C. *Does the effluent discharged from this facility exhibit the reasonable potential to violate water quality standards due to whole effluent toxicity?*

	Code	Points
<input type="checkbox"/> YES	1	10
<input checked="" type="checkbox"/> NO	2	0

Code Number Checked: A 1 B 1 C 2
Points Factor 5: A 10 + B 0 + C 0 = 10

FACTOR 6: Proximity to Near Coastal Waters

- A. Base Score: Enter flow code here (from factor 2) _____

Check appropriate facility HPRI code (from PCS):

HPRI#	Code	HPRI Score
<input type="checkbox"/> 1	1	20
<input type="checkbox"/> 2	2	0
<input type="checkbox"/> 3	3	30
<input checked="" type="checkbox"/> 4	4	0
<input type="checkbox"/> 5	5	20

Enter the multiplication factor that corresponds to the flow code: _____

Flow Code	Multiplication Factor
11, 31, or 41	0.00
12, 32, or 42	0.05
13, 33, or 43	0.10
14 or 34	0.15
21 or 51	0.10
22 or 52	0.30
23 or 53	0.60
24	1.00

HPRI code checked : 4

Base Score (HPRI Score): 0 X (Multiplication Factor) 0.1 = 0

- B. Additional Points – NEP Program

For a facility that has an HPRI code of 3, does the facility discharge to one of the estuaries enrolled in the National Estuary Protection (NEP) program (see instructions) or the Chesapeake Bay?

Code	Points
<input type="checkbox"/> 1	10
<input checked="" type="checkbox"/> 2	0

- C. Additional Points – Great Lakes Area of Concern

For a facility that has an HPRI code of 5, does the facility discharge any of the pollutants of concern into one of the Great Lakes' 31 area's of concern (see instructions)?

Code	Points
<input type="checkbox"/> 1	10
<input checked="" type="checkbox"/> 2	0

Code Number Checked: A 4 B 2 C 2
Points Factor 6: A 0 + B 0 + C 0 = 0

NPDES PERMIT RATING WORK SHEET

SCORE SUMMARY

<u>Factor</u>	<u>Description</u>	<u>Total Points</u>
1	Toxic Pollutant Potential	40
2	Flows / Streamflow Volume	10
3	Conventional Pollutants	0
4	Public Health Impacts	0
5	Water Quality Factors	10
6	Proximity to Near Coastal Waters	0
TOTAL (Factors 1 through 6)		60

S1. Is the total score equal to or greater than 80 ☐ YES; (Facility is a Major) ☒ NO

S2. If the answer to the above questions is no, would you like this facility to be discretionary major?

☒ NO

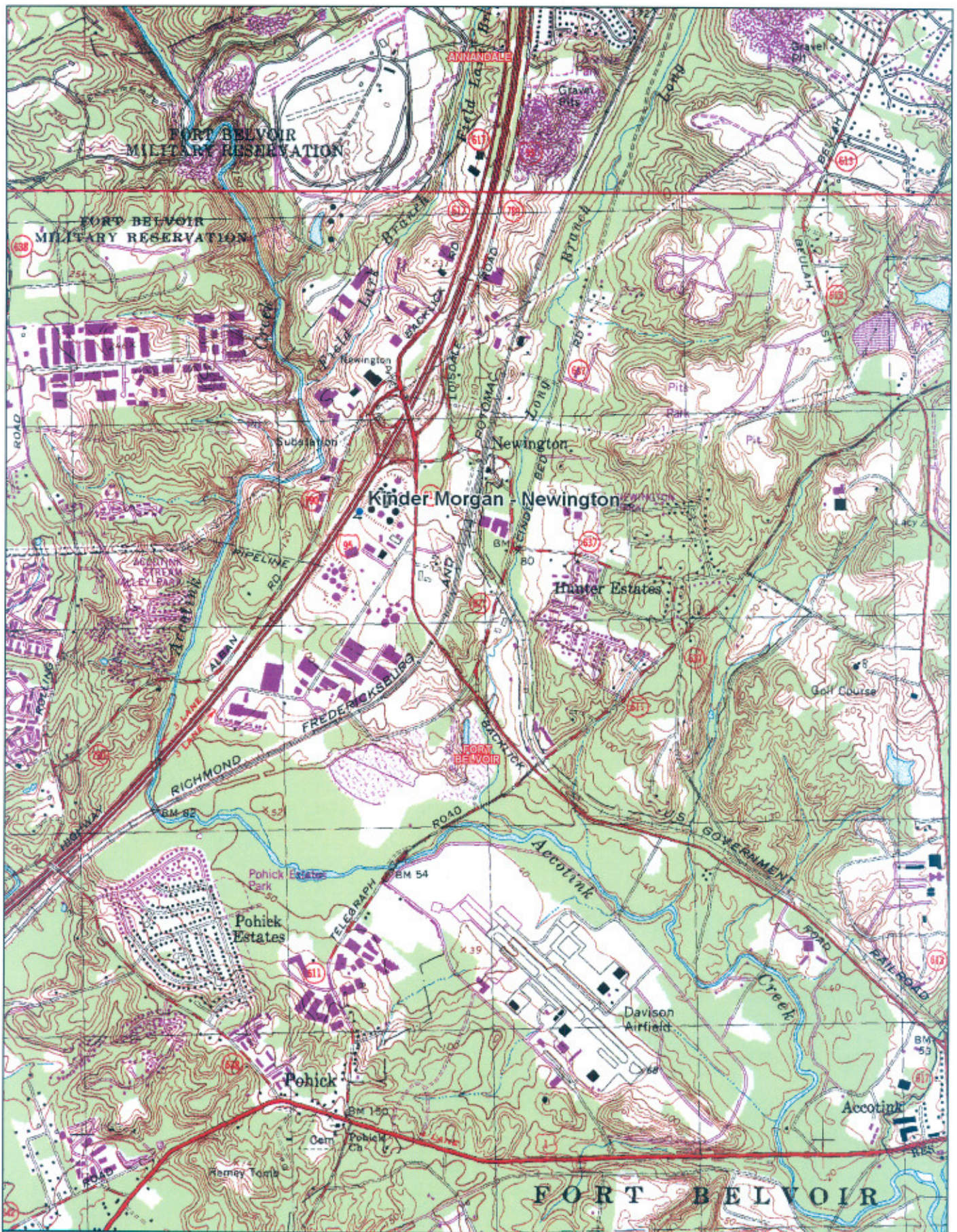
☐ YES; (Add 500 points to the above score and provide reason below:

Reason: _____

NEW SCORE : 60

OLD SCORE : 60

Permit Reviewer's Name : Susan Mackert
Phone Number: (703) 583-3853
Date: March 20, 2008



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www.delorme.com

Scale 1 : 25,000
1" = 2080 ft



FRESHWATER WATER QUALITY CRITERIA / WASTELOAD ALLOCATION ANALYSIS

Facility Name: Kinder Morgan - Newington

Permit No.: VA0001945

Receiving Stream: UT to Accotink Creek

Version: OWP Guidance Memo 00-2011 (8/24/00)

Stream Information		Stream Flows		Mixing Information		Effluent Information	
Mean Hardness (as CaCO3) =	mg/L	1Q10 (Annual) =	0 MGD	Annual - 1Q10 Mix =	0 %	Mean Hardness (as CaCO3) =	46 mg/L
90% Temperature (Annual) =	deg C	7Q10 (Annual) =	0 MGD	- 7Q10 Mix =	0 %	90% Temp (Annual) =	deg C
90% Temperature (Wet season) =	deg C	30Q10 (Annual) =	0 MGD	- 30Q10 Mix =	0 %	90% Temp (Wet season) =	deg C
90% Maximum pH =	SU	1Q10 (Wet season) =	0 MGD	Wet Season - 1Q10 Mix =	0 %	90% Maximum pH =	8.57 SU
10% Maximum pH =	SU	30Q10 (Wet season) =	0 MGD	- 30Q10 Mix =	0 %	10% Maximum pH =	SU
Tier Designation (1 or 2) =	1	30Q5 =	0 MGD			Discharge Flow =	0.176 MGD
Public Water Supply (PWS) Y/N? =	n	Harmonic Mean =	0 MGD				
Trout Present Y/N? =	n	Annual Average =	0 MGD				
Early Life Stages Present Y/N? =	y						

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Acenaphthene	0	--	--	na	2.7E+03	--	--	na	2.7E+03	--	--	--	--	--	--	--	--	--	--	na	2.7E+03
Acrolein	0	--	--	na	7.8E+02	--	--	na	7.8E+02	--	--	--	--	--	--	--	--	--	--	na	7.8E+02
Acrylonitrile ^c	0	--	--	na	6.6E+00	--	--	na	6.6E+00	--	--	--	--	--	--	--	--	--	--	na	6.6E+00
Aldrin ^c	0	3.0E+00	--	na	1.4E-03	3.0E+00	--	na	1.4E-03	--	--	--	--	--	--	--	--	3.0E+00	--	na	1.4E-03
Ammonia-N (mg/l) (Yearly)	0	2.80E+00	9.68E-01	na	--	2.8E+00	9.7E-01	na	--	--	--	--	--	--	--	--	--	2.8E+00	9.7E-01	na	--
Ammonia-N (mg/l) (High Flow)	0	2.80E+00	9.68E-01	na	--	2.8E+00	9.7E-01	na	--	--	--	--	--	--	--	--	--	2.8E+00	9.7E-01	na	--
Anthracene	0	--	--	na	1.1E+05	--	--	na	1.1E+05	--	--	--	--	--	--	--	--	--	--	na	1.1E+05
Antimony	0	--	--	na	4.3E+03	--	--	na	4.3E+03	--	--	--	--	--	--	--	--	--	--	na	4.3E+03
Arsenic	0	3.4E+02	1.5E+02	na	--	3.4E+02	1.5E+02	na	--	--	--	--	--	--	--	--	--	3.4E+02	1.5E+02	na	--
Barium	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Benzene ^c	0	--	--	na	7.1E+02	--	--	na	7.1E+02	--	--	--	--	--	--	--	--	--	--	na	7.1E+02
Benzidine ^c	0	--	--	na	5.4E-03	--	--	na	5.4E-03	--	--	--	--	--	--	--	--	--	--	na	5.4E-03
Benzo (a) anthracene ^c	0	--	--	na	4.9E-01	--	--	na	4.9E-01	--	--	--	--	--	--	--	--	--	--	na	4.9E-01
Benzo (b) fluoranthene ^c	0	--	--	na	4.9E-01	--	--	na	4.9E-01	--	--	--	--	--	--	--	--	--	--	na	4.9E-01
Benzo (k) fluoranthene ^c	0	--	--	na	4.9E-01	--	--	na	4.9E-01	--	--	--	--	--	--	--	--	--	--	na	4.9E-01
Benzo (a) pyrene ^c	0	--	--	na	4.9E-01	--	--	na	4.9E-01	--	--	--	--	--	--	--	--	--	--	na	4.9E-01
Bis(2-Chloroethyl) Ether	0	--	--	na	1.4E+01	--	--	na	1.4E+01	--	--	--	--	--	--	--	--	--	--	na	1.4E+01
Bis(2-Chloroisopropyl) Ether	0	--	--	na	1.7E+05	--	--	na	1.7E+05	--	--	--	--	--	--	--	--	--	--	na	1.7E+05
Bromoform ^c	0	--	--	na	3.6E+03	--	--	na	3.6E+03	--	--	--	--	--	--	--	--	--	--	na	3.6E+03
Butylbenzylphthalate	0	--	--	na	5.2E+03	--	--	na	5.2E+03	--	--	--	--	--	--	--	--	--	--	na	5.2E+03
Cadmium	0	1.6E+00	6.2E-01	na	--	1.6E+00	6.2E-01	na	--	--	--	--	--	--	--	--	--	1.6E+00	6.2E-01	na	--
Carbon Tetrachloride ^c	0	--	--	na	4.4E+01	--	--	na	4.4E+01	--	--	--	--	--	--	--	--	--	--	na	4.4E+01
Chlordane ^c	0	2.4E+00	4.3E-03	na	2.2E-02	2.4E+00	4.3E-03	na	2.2E-02	--	--	--	--	--	--	--	--	2.4E+00	4.3E-03	na	2.2E-02
Chloride	0	8.6E+05	2.3E+05	na	--	8.6E+05	2.3E+05	na	--	--	--	--	--	--	--	--	--	8.6E+05	2.3E+05	na	--
TRC	0	1.9E+01	1.1E+01	na	--	1.9E+01	1.1E+01	na	--	--	--	--	--	--	--	--	--	1.9E+01	1.1E+01	na	--
Chlorobenzene	0	--	--	na	2.1E+04	--	--	na	2.1E+04	--	--	--	--	--	--	--	--	--	--	na	2.1E+04

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Chlorodibromomethane ^c	0	--	--	na	3.4E+02	--	--	na	3.4E+02	--	--	--	--	--	--	--	--	--	--	na	3.4E+02
Chloroform ^c	0	--	--	na	2.9E+04	--	--	na	2.9E+04	--	--	--	--	--	--	--	--	--	--	na	2.9E+04
2-Chloronaphthalene	0	--	--	na	4.3E+03	--	--	na	4.3E+03	--	--	--	--	--	--	--	--	--	--	na	4.3E+03
2-Chlorophenol	0	--	--	na	4.0E+02	--	--	na	4.0E+02	--	--	--	--	--	--	--	--	--	--	na	4.0E+02
Chlorpyrifos	0	8.3E-02	4.1E-02	na	--	8.3E-02	4.1E-02	na	--	--	--	--	--	--	--	--	--	8.3E-02	4.1E-02	na	--
Chromium III	0	3.0E+02	3.9E+01	na	--	3.0E+02	3.9E+01	na	--	--	--	--	--	--	--	--	--	3.0E+02	3.9E+01	na	--
Chromium VI	0	1.6E+01	1.1E+01	na	--	1.6E+01	1.1E+01	na	--	--	--	--	--	--	--	--	--	1.6E+01	1.1E+01	na	--
Chromium, Total	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Chrysene ^c	0	--	--	na	4.9E-01	--	--	na	4.9E-01	--	--	--	--	--	--	--	--	--	--	na	4.9E-01
Copper	0	6.5E+00	4.6E+00	na	--	6.5E+00	4.6E+00	na	--	--	--	--	--	--	--	--	--	6.5E+00	4.6E+00	na	--
Cyanide	0	2.2E+01	5.2E+00	na	2.2E+05	2.2E+01	5.2E+00	na	2.2E+05	--	--	--	--	--	--	--	--	2.2E+01	5.2E+00	na	2.2E+05
DDD ^c	0	--	--	na	8.4E-03	--	--	na	8.4E-03	--	--	--	--	--	--	--	--	--	--	na	8.4E-03
DDE ^c	0	--	--	na	5.9E-03	--	--	na	5.9E-03	--	--	--	--	--	--	--	--	--	--	na	5.9E-03
DDT ^c	0	1.1E+00	1.0E-03	na	5.9E-03	1.1E+00	1.0E-03	na	5.9E-03	--	--	--	--	--	--	--	--	1.1E+00	1.0E-03	na	5.9E-03
Demeton	0	--	1.0E-01	na	--	--	1.0E-01	na	--	--	--	--	--	--	--	--	--	--	1.0E-01	na	--
Dibenz(a,h)anthracene ^c	0	--	--	na	4.9E-01	--	--	na	4.9E-01	--	--	--	--	--	--	--	--	--	--	na	4.9E-01
Dibutyl phthalate	0	--	--	na	1.2E+04	--	--	na	1.2E+04	--	--	--	--	--	--	--	--	--	--	na	1.2E+04
Dichloromethane (Methylene Chloride) ^c	0	--	--	na	1.6E+04	--	--	na	1.6E+04	--	--	--	--	--	--	--	--	--	--	na	1.6E+04
1,2-Dichlorobenzene	0	--	--	na	1.7E+04	--	--	na	1.7E+04	--	--	--	--	--	--	--	--	--	--	na	1.7E+04
1,3-Dichlorobenzene	0	--	--	na	2.6E+03	--	--	na	2.6E+03	--	--	--	--	--	--	--	--	--	--	na	2.6E+03
1,4-Dichlorobenzene	0	--	--	na	2.6E+03	--	--	na	2.6E+03	--	--	--	--	--	--	--	--	--	--	na	2.6E+03
3,3-Dichlorobenzidine ^c	0	--	--	na	7.7E-01	--	--	na	7.7E-01	--	--	--	--	--	--	--	--	--	--	na	7.7E-01
Dichlorobromomethane ^c	0	--	--	na	4.6E+02	--	--	na	4.6E+02	--	--	--	--	--	--	--	--	--	--	na	4.6E+02
1,2-Dichloroethane ^c	0	--	--	na	9.9E+02	--	--	na	9.9E+02	--	--	--	--	--	--	--	--	--	--	na	9.9E+02
1,1-Dichloroethylene	0	--	--	na	1.7E+04	--	--	na	1.7E+04	--	--	--	--	--	--	--	--	--	--	na	1.7E+04
1,2-trans-dichloroethylene	0	--	--	na	1.4E+05	--	--	na	1.4E+05	--	--	--	--	--	--	--	--	--	--	na	1.4E+05
2,4-Dichlorophenol	0	--	--	na	7.9E+02	--	--	na	7.9E+02	--	--	--	--	--	--	--	--	--	--	na	7.9E+02
2,4-Dichlorophenoxy acetic acid (2,4-D)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
1,2-Dichloropropane ^c	0	--	--	na	3.9E+02	--	--	na	3.9E+02	--	--	--	--	--	--	--	--	--	--	na	3.9E+02
1,3-Dichloropropene	0	--	--	na	1.7E+03	--	--	na	1.7E+03	--	--	--	--	--	--	--	--	--	--	na	1.7E+03
Dieldrin ^c	0	2.4E-01	5.6E-02	na	1.4E-03	2.4E-01	5.6E-02	na	1.4E-03	--	--	--	--	--	--	--	--	2.4E-01	5.6E-02	na	1.4E-03
Diethyl Phthalate	0	--	--	na	1.2E+05	--	--	na	1.2E+05	--	--	--	--	--	--	--	--	--	--	na	1.2E+05
Di-2-Ethylhexyl Phthalate ^c	0	--	--	na	5.9E+01	--	--	na	5.9E+01	--	--	--	--	--	--	--	--	--	--	na	5.9E+01
2,4-Dimethylphenol	0	--	--	na	2.3E+03	--	--	na	2.3E+03	--	--	--	--	--	--	--	--	--	--	na	2.3E+03
Dimethyl Phthalate	0	--	--	na	2.9E+06	--	--	na	2.9E+06	--	--	--	--	--	--	--	--	--	--	na	2.9E+06
Di-n-Butyl Phthalate	0	--	--	na	1.2E+04	--	--	na	1.2E+04	--	--	--	--	--	--	--	--	--	--	na	1.2E+04
2,4-Dinitrophenol	0	--	--	na	1.4E+04	--	--	na	1.4E+04	--	--	--	--	--	--	--	--	--	--	na	1.4E+04
2-Methyl-4,6-Dinitrophenol	0	--	--	na	7.65E+02	--	--	na	7.7E+02	--	--	--	--	--	--	--	--	--	--	na	7.7E+02
2,4-Dinitrotoluene ^c	0	--	--	na	9.1E+01	--	--	na	9.1E+01	--	--	--	--	--	--	--	--	--	--	na	9.1E+01
lloxin (2,4,7,8- tetrachlorodibenzo-p- dioxin) (ppq)	0	--	--	na	1.2E-06	--	--	na	na	--	--	--	--	--	--	--	--	--	--	na	na
1,2-Diphenylhydrazine ^c	0	--	--	na	5.4E+00	--	--	na	5.4E+00	--	--	--	--	--	--	--	--	--	--	na	5.4E+00
Alpha-Endosulfan	0	2.2E-01	5.6E-02	na	2.4E+02	2.2E-01	5.6E-02	na	2.4E+02	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	na	2.4E+02
Beta-Endosulfan	0	2.2E-01	5.6E-02	na	2.4E+02	2.2E-01	5.6E-02	na	2.4E+02	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	na	2.4E+02
Endosulfan Sulfate	0	--	--	na	2.4E+02	--	--	na	2.4E+02	--	--	--	--	--	--	--	--	--	--	na	2.4E+02
Endrin	0	8.6E-02	3.6E-02	na	8.1E-01	8.6E-02	3.6E-02	na	8.1E-01	--	--	--	--	--	--	--	--	8.6E-02	3.6E-02	na	8.1E-01
Endrin Aldehyde	0	--	--	na	8.1E-01	--	--	na	8.1E-01	--	--	--	--	--	--	--	--	--	--	na	8.1E-01

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Ethylbenzene	0	--	--	na	2.9E+04	--	--	na	2.9E+04	--	--	--	--	--	--	--	--	--	--	na	2.9E+04
Fluoranthene	0	--	--	na	3.7E+02	--	--	na	3.7E+02	--	--	--	--	--	--	--	--	--	--	na	3.7E+02
Fluorene	0	--	--	na	1.4E+04	--	--	na	1.4E+04	--	--	--	--	--	--	--	--	--	--	na	1.4E+04
Foaming Agents	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Guthion	0	--	1.0E-02	na	--	--	1.0E-02	na	--	--	--	--	--	--	--	--	--	--	1.0E-02	na	--
Heptachlor ^C	0	5.2E-01	3.8E-03	na	2.1E-03	5.2E-01	3.8E-03	na	2.1E-03	--	--	--	--	--	--	--	--	5.2E-01	3.8E-03	na	2.1E-03
Heptachlor Epoxide ^C	0	5.2E-01	3.8E-03	na	1.1E-03	5.2E-01	3.8E-03	na	1.1E-03	--	--	--	--	--	--	--	--	5.2E-01	3.8E-03	na	1.1E-03
Hexachlorobenzene ^C	0	--	--	na	7.7E-03	--	--	na	7.7E-03	--	--	--	--	--	--	--	--	--	--	na	7.7E-03
Hexachlorobutadiene ^C	0	--	--	na	5.0E+02	--	--	na	5.0E+02	--	--	--	--	--	--	--	--	--	--	na	5.0E+02
Hexachlorocyclohexane Alpha-BHC ^C	0	--	--	na	1.3E-01	--	--	na	1.3E-01	--	--	--	--	--	--	--	--	--	--	na	1.3E-01
Hexachlorocyclohexane Beta-BHC ^C	0	--	--	na	4.6E-01	--	--	na	4.6E-01	--	--	--	--	--	--	--	--	--	--	na	4.6E-01
Hexachlorocyclohexane Gamma-BHC ^C (Lindane)	0	9.5E-01	na	na	6.3E-01	9.5E-01	--	na	6.3E-01	--	--	--	--	--	--	--	--	9.5E-01	--	na	6.3E-01
Hexachlorocyclopentadiene	0	--	--	na	1.7E+04	--	--	na	1.7E+04	--	--	--	--	--	--	--	--	--	--	na	1.7E+04
Hexachloroethane ^C	0	--	--	na	8.9E+01	--	--	na	8.9E+01	--	--	--	--	--	--	--	--	--	--	na	8.9E+01
Hydrogen Sulfide	0	--	2.0E+00	na	--	--	2.0E+00	na	--	--	--	--	--	--	--	--	--	--	2.0E+00	na	--
Indeno (1,2,3-cd) pyrene ^C	0	--	--	na	4.9E-01	--	--	na	4.9E-01	--	--	--	--	--	--	--	--	--	--	na	4.9E-01
Iron	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Isophorone ^C	0	--	--	na	2.6E+04	--	--	na	2.6E+04	--	--	--	--	--	--	--	--	--	--	na	2.6E+04
Kepone	0	--	0.0E+00	na	--	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	--	0.0E+00	na	--
Lead	0	4.4E+01	5.0E+00	na	--	4.4E+01	5.0E+00	na	--	--	--	--	--	--	--	--	--	4.4E+01	5.0E+00	na	--
Malathion	0	--	1.0E-01	na	--	--	1.0E-01	na	--	--	--	--	--	--	--	--	--	--	1.0E-01	na	--
Manganese	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Mercury	0	1.4E+00	7.7E-01	na	5.1E-02	1.4E+00	7.7E-01	na	5.1E-02	--	--	--	--	--	--	--	--	1.4E+00	7.7E-01	na	5.1E-02
Methyl Bromide	0	--	--	na	4.0E+03	--	--	na	4.0E+03	--	--	--	--	--	--	--	--	--	--	na	4.0E+03
Methoxychlor	0	--	3.0E-02	na	--	--	3.0E-02	na	--	--	--	--	--	--	--	--	--	--	3.0E-02	na	--
Mirex	0	--	0.0E+00	na	--	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	--	0.0E+00	na	--
Monochlorobenzene	0	--	--	na	2.1E+04	--	--	na	2.1E+04	--	--	--	--	--	--	--	--	--	--	na	2.1E+04
Nickel	0	9.5E+01	1.1E+01	na	4.6E+03	9.5E+01	1.1E+01	na	4.6E+03	--	--	--	--	--	--	--	--	9.5E+01	1.1E+01	na	4.6E+03
Nitrate (as N)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Nitrobenzene	0	--	--	na	1.9E+03	--	--	na	1.9E+03	--	--	--	--	--	--	--	--	--	--	na	1.9E+03
N-Nitrosodimethylamine ^C	0	--	--	na	8.1E+01	--	--	na	8.1E+01	--	--	--	--	--	--	--	--	--	--	na	8.1E+01
N-Nitrosodiphenylamine ^C	0	--	--	na	1.6E+02	--	--	na	1.6E+02	--	--	--	--	--	--	--	--	--	--	na	1.6E+02
N-Nitrosodi-n-propylamine ^C	0	--	--	na	1.4E+01	--	--	na	1.4E+01	--	--	--	--	--	--	--	--	--	--	na	1.4E+01
Parathion	0	6.5E-02	1.3E-02	na	--	6.5E-02	1.3E-02	na	--	--	--	--	--	--	--	--	--	6.5E-02	1.3E-02	na	--
PCB-1016	0	--	1.4E-02	na	--	--	1.4E-02	na	--	--	--	--	--	--	--	--	--	--	1.4E-02	na	--
PCB-1221	0	--	1.4E-02	na	--	--	1.4E-02	na	--	--	--	--	--	--	--	--	--	--	1.4E-02	na	--
PCB-1232	0	--	1.4E-02	na	--	--	1.4E-02	na	--	--	--	--	--	--	--	--	--	--	1.4E-02	na	--
PCB-1242	0	--	1.4E-02	na	--	--	1.4E-02	na	--	--	--	--	--	--	--	--	--	--	1.4E-02	na	--
PCB-1248	0	--	1.4E-02	na	--	--	1.4E-02	na	--	--	--	--	--	--	--	--	--	--	1.4E-02	na	--
PCB-1254	0	--	1.4E-02	na	--	--	1.4E-02	na	--	--	--	--	--	--	--	--	--	--	1.4E-02	na	--
PCB-1260	0	--	1.4E-02	na	--	--	1.4E-02	na	--	--	--	--	--	--	--	--	--	--	1.4E-02	na	--
PCB Total ^C	0	--	--	na	1.7E-03	--	--	na	1.7E-03	--	--	--	--	--	--	--	--	--	--	na	1.7E-03

Parameter (ug/l unless noted)	Background Conc.	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Pentachlorophenol ^C	0	7.7E-03	5.9E-03	na	8.2E+01	7.7E-03	5.9E-03	na	8.2E+01	--	--	--	--	--	--	--	--	7.7E-03	5.9E-03	na	8.2E+01
Phenol	0	--	--	na	4.6E+06	--	--	na	4.6E+06	--	--	--	--	--	--	--	--	--	--	na	4.6E+06
Pyrene	0	--	--	na	1.1E+04	--	--	na	1.1E+04	--	--	--	--	--	--	--	--	--	--	na	1.1E+04
Radionuclides (pCi/l except Beta/Photon)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Gross Alpha Activity Beta and Photon Activity (mrem/yr)	0	--	--	na	1.5E+01	--	--	na	1.5E+01	--	--	--	--	--	--	--	--	--	--	na	1.5E+01
Strontium-90	0	--	--	na	4.0E+00	--	--	na	4.0E+00	--	--	--	--	--	--	--	--	--	--	na	4.0E+00
Tritium	0	--	--	na	8.0E+00	--	--	na	8.0E+00	--	--	--	--	--	--	--	--	--	--	na	8.0E+00
Selenium	0	--	--	na	2.0E+04	--	--	na	2.0E+04	--	--	--	--	--	--	--	--	--	--	na	2.0E+04
Silver	0	2.0E+01	5.0E+00	na	1.1E+04	2.0E+01	5.0E+00	na	1.1E+04	--	--	--	--	--	--	--	--	2.0E+01	5.0E+00	na	1.1E+04
Sulfate	0	9.1E-01	--	na	--	9.1E-01	--	na	--	--	--	--	--	--	--	--	--	9.1E-01	--	na	--
1,1,2,2-Tetrachloroethane ^C	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Tetrachloroethylene ^C	0	--	--	na	1.1E+02	--	--	na	1.1E+02	--	--	--	--	--	--	--	--	--	--	na	1.1E+02
Thallium	0	--	--	na	8.9E+01	--	--	na	8.9E+01	--	--	--	--	--	--	--	--	--	--	na	8.9E+01
Toluene	0	--	--	na	6.3E+00	--	--	na	6.3E+00	--	--	--	--	--	--	--	--	--	--	na	6.3E+00
Total dissolved solids	0	--	--	na	2.0E+05	--	--	na	2.0E+05	--	--	--	--	--	--	--	--	--	--	na	2.0E+05
Toxaphene ^C	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Tributyltin	0	7.3E-01	2.0E-04	na	7.5E-03	7.3E-01	2.0E-04	na	7.5E-03	--	--	--	--	--	--	--	--	7.3E-01	2.0E-04	na	7.5E-03
1,2,4-Trichlorobenzene	0	4.6E-01	6.3E-02	na	--	4.6E-01	6.3E-02	na	--	--	--	--	--	--	--	--	--	4.6E-01	6.3E-02	na	--
1,1,2-Trichloroethane ^C	0	--	--	na	9.4E+02	--	--	na	9.4E+02	--	--	--	--	--	--	--	--	--	--	na	9.4E+02
Trichloroethylene ^C	0	--	--	na	4.2E+02	--	--	na	4.2E+02	--	--	--	--	--	--	--	--	--	--	na	4.2E+02
2,4,6-Trichlorophenol ^C	0	--	--	na	8.1E+02	--	--	na	8.1E+02	--	--	--	--	--	--	--	--	--	--	na	8.1E+02
2-(2,4,5-Trichlorophenoxy) propionic acid (Silvex)	0	--	--	na	6.5E+01	--	--	na	6.5E+01	--	--	--	--	--	--	--	--	--	--	na	6.5E+01
Vinyl Chloride ^C	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Zinc	0	--	--	na	6.1E+01	--	--	na	6.1E+01	--	--	--	--	--	--	--	--	--	--	na	6.1E+01
Zinc	0	6.1E+01	6.1E+01	na	6.9E+04	6.1E+01	6.1E+01	na	6.9E+04	--	--	--	--	--	--	--	--	6.1E+01	6.1E+01	na	6.9E+04

Notes:

1. All concentrations expressed as micrograms/liter (ug/l), unless noted otherwise
2. Discharge flow is highest monthly average or Form 2C maximum for Industries and design flow for Municipals
3. Metals measured as Dissolved, unless specified otherwise
4. "C" indicates a carcinogenic parameter
5. Regular WLAs are mass balances (minus background concentration) using the % of stream flow entered above under Mixing Information.
Antidegradation WLAs are based upon a complete mix.
6. Antideg. Baseline = (0.25(WQC - background conc.) + background conc.) for acute and chronic
= (0.1(WQC - background conc.) + background conc.) for human health
7. WLAs established at the following stream flows: 1Q10 for Acute, 30Q10 for Chronic Ammonia, 7Q10 for Other Chronic, 30Q5 for Non-carcinogens, Harmonic Mean for Carcinogens, and Annual Average for Dioxin. Mixing ratios may be substituted for stream flows where appropriate.

Metal	Target Value (SSTV)
Antimony	4.3E+03
Arsenic	9.0E+01
Barium	na
Cadmium	3.7E-01
Chromium III	2.4E+01
Chromium VI	6.4E+00
Copper	2.6E+00
Iron	na
Lead	3.0E+00
Manganese	na
Mercury	5.1E-02
Nickel	6.3E+00
Selenium	3.0E+00
Silver	3.6E-01
Zinc	2.4E+01

Note: do not use QL's lower than the minimum QL's provided in agency guidance

3/24/2008 9:48:59 AM

Facility = Kinder Morgan - Newington

Chemical = Dissolved Zinc

Chronic averaging period = 4

WLAa = 61

WLAc = 61

Q.L. = 20

samples/mo. = 1

samples/wk. = 1

Summary of Statistics:

observations = 3

Expected Value = 18.5549

Variance = 123.943

C.V. = 0.6

97th percentile daily values = 45.1520

97th percentile 4 day average = 30.8715

97th percentile 30 day average = 22.3782

< Q.L. = 2

Model used = BPJ Assumptions, Type 1 data

No Limit is required for this material

The data are:

70.5

8.04

8.2

3/24/2008 10:02:24 AM

Facility = Kinder Morgan - Newington

Chemical = Total Residual Chlorine

Chronic averaging period = 4

WLAa = 0.019

WLAc = 0.011

Q.L. = 0.1

samples/mo. = 1

samples/wk. = 1

Summary of Statistics:

observations = 1

Expected Value = .1

Variance = .0036

C.V. = 0.6

97th percentile daily values = .243341

97th percentile 4 day average = .166379

97th percentile 30 day average = .120605

< Q.L. = 0

Model used = BPJ Assumptions, type 2 data

A limit is needed based on Chronic Toxicity

Maximum Daily Limit = 1.60883226245856E-02

Average Weekly limit = 1.60883226245856E-02

Average Monthly Limit = 1.60883226245856E-02

The data are:

0.1

Citizens may comment on the proposed reissuance of a permit that allows the release of treated industrial wastewater and storm water into a water body in Fairfax County, Virginia.

PUBLIC COMMENT PERIOD: April 23, 2008 to 5:00 p.m. on May 22, 2008

PERMIT NAME: Virginia Pollutant Discharge Elimination System Permit – Industrial

Owners or operators of industrial facilities that discharge or propose to discharge storm water into the streams, rivers or bays of Virginia from a point source must apply for this permit. In general, point sources are fixed sources of pollution such as pipes, ditches or channels. The applicant must submit the application to the Department of Environmental Quality, under the authority of the State Water Control Board.

PURPOSE OF NOTICE: To invite the public to comment on the draft permit.

NAME, ADDRESS AND PERMIT NUMBER OF APPLICANT: Kinder Morgan Southeast Terminals, LLC
1100 Alderman Drive, Suite 200
Alpharetta, GA 30005
VA0001945

NAME AND ADDRESS OF FACILITY: Kinder Morgan Newington Terminal
8200 Terminal Road, Newington, VA 22122

PROJECT DESCRIPTION: Kinder Morgan Southeast Terminals, LLC has applied for a reissuance of a permit for Kinder Morgan Newington Terminal in Fairfax County, Virginia. The applicant proposes to release treated industrial wastewater and storm water at an average rate of 0.176 Million Gallons per Day into an UT of Accotink Creek in Fairfax County that is in the Potomac River watershed. A watershed is the land area drained by a river and its incoming streams. The permit will limit the following pollutants to amounts that protect water quality: pH, Total Petroleum Hydrocarbons, BTEX, Naphthalene, Total Residual Chlorine and Total Suspended Solids. Acute toxicity will also be monitored using *Ceriodaphnia dubia*.

HOW A DECISION IS MADE: After public comments have been considered and addressed by the permit or other means, DEQ will make the final decision unless there is a public hearing. DEQ may hold a public hearing, including another comment period, if public response is significant and there are substantial, disputed issues relevant to the proposed permit. If there is a public hearing, the State Water Control Board will make the final decision.

HOW TO COMMENT: DEQ accepts comments by e-mail, fax or postal mail. All comments must be in writing and be received by DEQ during the comment period. The public also may request a public hearing.

WRITTEN COMMENTS MUST INCLUDE:

1. The names, mailing addresses and telephone numbers of the person commenting and of all people represented by the citizen.
2. If a public hearing is requested, the reason for holding a hearing, including associated concerns.
3. A brief, informal statement regarding the extent of the interest of the person commenting, including how the operation of the facility or activity affects the citizen.

TO REVIEW THE DRAFT PERMIT AND APPLICATION: The public may review the documents at the DEQ-Northern Regional Office every work day by appointment.

CONTACT FOR PUBLIC COMMENTS, DOCUMENT REQUESTS AND ADDITIONAL INFORMATION:

Name: Susan Mackert

Address: DEQ-Northern Regional Office, 13901 Crown Court, Woodbridge, VA 22193

Phone: (703) 583-3853 E-mail: sdmackert@deq.virginia.gov Fax: (703) 583-3841

**State "Transmittal Checklist" to Assist in Targeting
Municipal and Industrial Individual NPDES Draft Permits for Review**

Part I. State Draft Permit Submission Checklist

In accordance with the MOA established between the Commonwealth of Virginia and the United States Environmental Protection Agency, Region III, the Commonwealth submits the following draft National Pollutant Discharge Elimination System (NPDES) permit for Agency review and concurrence.

Facility Name:	Kinder Morgan – Newington
NPDES Permit Number:	VA0001945
Permit Writer Name:	Susan Mackert
Date:	March 20, 2008

Major ☐Minor ☒Industrial ☒Municipal ☐**I.A. Draft Permit Package Submittal Includes:**

	Yes	No	N/A
1. Permit Application?	X		
2. Complete Draft Permit (for renewal or first time permit – entire permit, including boilerplate information)?	X		
3. Copy of Public Notice?	X		
4. Complete Fact Sheet?	X		
5. A Priority Pollutant Screening to determine parameters of concern?	X		
6. A Reasonable Potential analysis showing calculated WQBELs?	X		
7. Dissolved Oxygen calculations?			X
8. Whole Effluent Toxicity Test summary and analysis?	X		
9. Permit Rating Sheet for new or modified industrial facilities?	X		

I.B. Permit/Facility Characteristics

	Yes	No	N/A
1. Is this a new, or currently unpermitted facility?		X	
2. Are all permissible outfalls (including combined sewer overflow points, non-process water and storm water) from the facility properly identified and authorized in the permit?	X		
3. Does the fact sheet or permit contain a description of the wastewater treatment process?	X		
4. Does the review of PCS/DMR data for at least the last 3 years indicate significant non-compliance with the existing permit?		X	
5. Has there been any change in streamflow characteristics since the last permit was developed?		X	
6. Does the permit allow the discharge of new or increased loadings of any pollutants?		X	
7. Does the fact sheet or permit provide a description of the receiving water body(s) to which the facility discharges, including information on low/critical flow conditions and designated/existing uses?	X		
8. Does the facility discharge to a 303(d) listed water?	X		
a. Has a TMDL been developed and approved by EPA for the impaired water?	X		
b. Does the record indicate that the TMDL development is on the State priority list and will most likely be developed within the life of the permit?	X		
c. Does the facility discharge a pollutant of concern identified in the TMDL or 303(d) listed water?		X	
9. Have any limits been removed, or are any limits less stringent, than those in the current permit?		X	
10. Does the permit authorize discharges of storm water?	X		

LB. Permit/Facility Characteristics – cont.	Yes	No	N/A
11. Has the facility substantially enlarged or altered its operation or substantially increased its flow or production?		X	
12. Are there any production-based, technology-based effluent limits in the permit?	X		
13. Do any water quality-based effluent limit calculations differ from the State's standard policies or procedures?		X	
14. Are any WQBELs based on an interpretation of narrative criteria?		X	
15. Does the permit incorporate any variances or other exceptions to the State's standards or regulations?		X	
16. Does the permit contain a compliance schedule for any limit or condition?		X	
17. Is there a potential impact to endangered/threatened species or their habitat by the facility's discharge(s)?		X	
18. Have impacts from the discharge(s) at downstream potable water supplies been evaluated?	X		
19. Is there any indication that there is significant public interest in the permit action proposed for this facility?		X	
20. Have previous permit, application, and fact sheet been examined?	X		

Part II. NPDES Draft Permit Checklist

Region III NPDES Permit Quality Review Checklist – For Non-Municipals (To be completed and included in the record for all non-POTWs)

II.A. Permit Cover Page/Administration	Yes	No	N/A
1. Does the fact sheet or permit describe the physical location of the facility, including latitude and longitude (not necessarily on permit cover page)?	X		
2. Does the permit contain specific authorization-to-discharge information (from where to where, by whom)?	X		

II.B. Effluent Limits – General Elements	Yes	No	N/A
1. Does the fact sheet describe the basis of final limits in the permit (e.g., that a comparison of technology and water quality-based limits was performed, and the most stringent limit selected)?	X		
2. Does the fact sheet discuss whether “antibacksliding” provisions were met for any limits that are less stringent than those in the previous NPDES permit?	X		

II.C. Technology-Based Effluent Limits (Effluent Guidelines & BPJ)	Yes	No	N/A
1. Is the facility subject to a national effluent limitations guideline (ELG)?		X	
a. If yes, does the record adequately document the categorization process, including an evaluation of whether the facility is a new source or an existing source?			X
b. If no, does the record indicate that a technology-based analysis based on Best Professional Judgement (BPJ) was used for all pollutants of concern discharged at treatable concentrations?	X		
2. For all limits developed based on BPJ, does the record indicate that the limits are consistent with the criteria established at 40 CFR 125.3(d)?	X		
3. Does the fact sheet adequately document the calculations used to develop both ELG and /or BPJ technology-based effluent limits?	X		
4. For all limits that are based on production or flow, does the record indicate that the calculations are based on a “reasonable measure of ACTUAL production” for the facility (not design)?			X
5. Does the permit contain “tiered” limits that reflect projected increases in production or flow?		X	
a. If yes, does the permit require the facility to notify the permitting authority when alternate levels of production or flow are attained?			X
6. Are technology-based permit limits expressed in appropriate units of measure (e.g., concentration, mass, SU)?	X		
7. Are all technology-based limits expressed in terms of both maximum daily, weekly average, and/or monthly average limits?	X		
8. Are any final limits less stringent than required by applicable effluent limitations guidelines or BPJ?		X	

II.D. Water Quality-Based Effluent Limits	Yes	No	N/A
1. Does the permit include appropriate limitations consistent with 40 CFR 122.44(d) covering State narrative and numeric criteria for water quality?	X		
2. Does the record indicate that any WQBELs were derived from a completed and EPA approved TMDL?		X	
3. Does the fact sheet provide effluent characteristics for each outfall?	X		
4. Does the fact sheet document that a “reasonable potential” evaluation was performed?	X		
a. If yes, does the fact sheet indicate that the “reasonable potential” evaluation was performed in accordance with the State’s approved procedures?	X		
b. Does the fact sheet describe the basis for allowing or disallowing in-stream dilution or a mixing zone?	X		
II.D. Water Quality-Based Effluent Limits – cont.	Yes	No	N/A
c. Does the fact sheet present WLA calculation procedures for all pollutants that were found to have “reasonable potential”?	X		
d. Does the fact sheet indicate that the “reasonable potential” and WLA calculations accounted for		X	

contributions from upstream sources (i.e., do calculations include ambient/background concentrations where data are available)?			
e. Does the permit contain numeric effluent limits for all pollutants for which “reasonable potential” was determined?		X	
5. Are all final WQBELs in the permit consistent with the justification and/or documentation provided in the fact sheet?	X		
6. For all final WQBELs, are BOTH long-term (e.g., average monthly) AND short-term (e.g., maximum daily, weekly average, instantaneous) effluent limits established?	X		
7. Are WQBELs expressed in the permit using appropriate units of measure (e.g., mass, concentration)?	X		
8. Does the fact sheet indicate that an “antidegradation” review was performed in accordance with the State’s approved antidegradation policy?	X		

II.E. Monitoring and Reporting Requirements	Yes	No	N/A
1. Does the permit require at least annual monitoring for all limited parameters?	X		
a. If no, does the fact sheet indicate that the facility applied for and was granted a monitoring waiver, AND, does the permit specifically incorporate this waiver?			
2. Does the permit identify the physical location where monitoring is to be performed for each outfall?	X		
3. Does the permit require testing for Whole Effluent Toxicity in accordance with the State’s standard practices?	X		

II.F. Special Conditions	Yes	No	N/A
1. Does the permit require development and implementation of a Best Management Practices (BMP) plan or site-specific BMPs?	X		
a. If yes, does the permit adequately incorporate and require compliance with the BMPs?	X		
2. If the permit contains compliance schedule(s), are they consistent with statutory and regulatory deadlines and requirements?		X	
3. Are other special conditions (e.g., ambient sampling, mixing studies, TIE/TRE, BMPs, special studies) consistent with CWA and NPDES regulations?	X		

II.G. Standard Conditions	Yes	No	N/A
1. Does the permit contain all 40 CFR 122.41 standard conditions or the State equivalent (or more stringent) conditions?	X		
List of Standard Conditions – 40 CFR 122.41			
Duty to comply	Property rights	Reporting Requirements	
Duty to reapply	Duty to provide information	Planned change	
Need to halt or reduce activity	Inspections and entry	Anticipated noncompliance	
not a defense	Monitoring and records	Transfers	
Duty to mitigate	Signatory requirement	Monitoring reports	
Proper O & M	Bypass	Compliance schedules	
Permit actions	Upset	24-Hour reporting	
		Other non-compliance	
2. Does the permit contain the additional standard condition (or the State equivalent or more stringent conditions) for existing non-municipal dischargers regarding pollutant notification levels [40 CFR 122.42(a)]?	X		

Part III. Signature Page

Based on a review of the data and other information submitted by the permit applicant, and the draft permit and other administrative records generated by the Department/Division and/or made available to the Department/Division, the information provided on this checklist is accurate and complete, to the best of my knowledge.

Name	<u>Susan Mackert</u>
Title	<u>Environmental Specialist II</u>
Signature	<u></u>
Date	<u>March 20, 2008</u>